

Remarks

Reconsideration and allowance of this application are respectfully requested.

Rejection as Anticipation Under 35 USC 102 (e)

Claims 1-4, 6 and 7 were rejected as anticipated pursuant to 35 USC 102(e) the applicant submits the following regarding the rejections. The rejection cites Hailey as incorporating a "synthetic felt" absorbent layer. For the prima facie case of a rejection as anticipated the rejection must (1) rely on a single reference, (2) that teaches or discloses (3) each of the claimed elements (4) expressly or inherently (5) interpreted by one of ordinary skill.

Here the prima facie case fails because the Hailey application fails to teach or disclose either inherently or expressly the central inventive element proposed in the Beard Application. The Hailey application refers to a specific absorbent layer as the key new inventive feature of that application. The absorbent layer specifically described in Hailey is "coform" which is a trade name for a specific product of Kimberly-Clark. Coform is described in trade literature as synthetic fiber composed of a wood pulp/polypropylene meltdown composition, which is a non woven synthetic fabric useful in containing fluids. As the manufacturer notes Coform is made from cellulose and meltdown fibers.¹

¹ (See <http://www.kcnonwoevens.com/coform.html> Kimberly Clarks website)

In addition, a July 2004 U.S. Patent Application² "Thin flexible microhook system for feminine care article" contains a definition for coform. The definition describes coform as a blend of meltdown fibers and cellulose fibers that is formed by air forming a meltdown polymer material while simultaneously blowing air suspended with cellulose fibers into the stream of meltdown fibers. The meltdown fibers containing wood fibers are collected on a forming surface, such as provided by a foraminous belt. The forming surface may include gas-pervious material, such as spunbonded fabric material, which has been placed onto the forming surface.

As described in textile literature, coform is in a general class of synthetic fibers (wood pulp/polypropylene meltdown material) that are manufactured through a process known as Melt Blow or Melt Blowdown.³ Through this process, the resulting fabric is a matrix of microfibers of cellulose (wood pulp) connected through a web of polypropylene (or similar material) microfibers.

Synthetic felts are described in textile literature and widely available as a general class of material commonly available under the generic name "synthetic felt". Synthetic felts are popular for use in many crafts for the wide range of colors and are also widely used in various commercial and industrial products. A search for "synthetic felt" using GOOGLE™ provided 766 hits (November 6, 2004). Synthetic felts are produced through "needle punching", where synthetic fibers in a bundled in a bed of a certain

² Application No. 20040133179 copy attached is assigned to Kimberly - Clark Worldwide.

³ See Melt Blown Technology Dahiya, Kamath, Hegde University of Tennessee Materials and Science Engineering www.egr.utk.edu/mse/pages/Textiles or See Nonwoven Materials Recent Developments, Gillies 1979 Noyes Data Corporation page 103 to 106

thickness, are passed through a needle bed.⁴ The selection of bed thickness is based on the desired thickness of the final product. Thousands of barbed needles affixed in a plate are pushed upward and downward through the fabric bed. Through this "needle punching" the fibers become mechanically interlocked creating a non-woven fabric. Through this interlocking, the fibers in the synthetic felt create a labyrinth of small passage ways, through which a liquid can pass. This feature of "synthetic felt" is described in the Beard application.

Coform is in no manner similar in properties, appearance, or means of manufacture to "synthetic felt" proposed in this application (Beard). There is no single example of which the applicant is aware where coform is included in a listing of synthetic felts or included within the class of synthetic felts. Meltblow fibers (such as coform) are a distinct subclass of synthetic nonwovens and synthetic felts are a separate and distinct subclass of synthetic nonwovens. Synthetic felt as used in the Beard application is intended to be assigned the meaning for one experienced in the art as described above. "Coform" has no other known meaning beyond the definition given to it by the manufacturer.

The method of operation of the absorbent layer in Hailey and Beard are fundamentally different and would not teach or infer the choice of synthetic felt to one experienced in the art. In Hailey the coform relies on the inherent properties of cellulose, which absorbs fluid directly into the material matrix expanding in volume as the fluid is absorbed. This behavior is similar to simple cardboard coasters which also contain cellulose. The absorbent action of Beard relies on a completely different physical mechanism whereby the fluid passes through the thousands of

⁴ (See Needle Punched Nonwovens, Kamath, Dahiva and Hegde, April 2004 University of Tennessee copy attached 222.engr.utk.edu/mse/pages/Textiles copy attached).

mechanically produced pores in the synthetic felt. The fluid then settles on the top surface of the coaster body, separated from the bottom of the drinking vessel. The fluid then slowly evaporates, in addition the separation between the fluid and the coaster body acts to eliminate surface tension adhesion of the coaster to the drinking vessel. There is nothing in Hailey to suggest an absorbent pad operating in this manner.

In summary, "coform" is the only absorbent pad specified in the cited reference Hailey, and no known literature in the textiles arts identifies coform as a synthetic felt. The means of manufacture of coform results in a synthetic fiber nothing like the proposed "synthetic felt" proposed in the Beard application. The underlying means of operation of the absorbent synthetic felt in Beard is nothing like that in Hailey. There is nothing in Hailey that would infer or teach that the use of a material used in Beard would be a good selection as an absorbent layer. The Hailey application teaches to materials that use cellulose or cellulose like materials to directly take water into the fiber matrix, with the material growing in volume as the fluid is taken up.

Therefore, for all the reasons above the applicant respectfully disagrees with the assertion that coform is a "synthetic felt". And since the absorbent pad element of Beard is different and not explicitly or implicitly inferred from Hailey, Claims 1 and 2 (as amended) should not be rejected as anticipated under 35 USC 102 (e), claims 3,4,6 and 7 have been canceled and the question is moot with respect to those claims.

Rejection as Obvious Under 35 USC 103 (a)

Claims 5 and 8 were rejected as obvious pursuant to 35 USC 103(a), specifically that Claims 5 and 8 were rejected as unpatentable over the Hailey application in view of the Dauer. The applicant submits the following regarding the rejections.

The applicant notes that the examiner must establish a prima facie case of obviousness by demonstrating that (1) one of more references, (2) available to the inventor, (3) which teach, (4) a suggestion to combine or modify the references, (5) the combination of modification of which would appear to be obvious to one of ordinary skill in the art. The applicant respectfully asserts that the examiner has failed to establish a prima facie case of obviousness.

The rejection cites Dauer as a coaster with an absorbent layer which has threaded embroidery woven into the absorbent layer for aesthetics and for holding layers together. The Dauer Application describes a coaster comprised of an upper portion and lower portion, the upper portion and lower portion are joined together with stitching "or other means along the edge to secure the pieces together". In addition, the top portion contains a number of slits, which allow the base of a piece of stem ware to pass between the upper and lower portions of the coaster material. The base of the stemware is then captured between the upper and lower portions of the coaster. The edges of the slits are also stitched to "prevent raveling and/or provide decorative effect."

In the configuration of Dauer, stitching is used to (1) join a top layer absorbent to a bottom layer absorbent through stitching at the edges and or (2) stitch together the edges of slits in the upper layer of a two layer absorbent pad. In these cases the stitches, commonly referred to as serge stitch, are specifically applied to edges and seams. The "serge

stitch" is most common because its strength. There is no way for edge and slit stitches of Dauer to be located beneath the base of a drinking vessel.

Beard describes an embroidered design producing a "slightly increased undulation on the top surface of the absorbent pad [201]. This slight undulation acts to further reduce surface tension forces between the coaster and drinking vessel which tends to completely eliminate cling of the coaster to the underside of the drinking vessel." The embroidered design of Beard must be located between the bottom of the drinking vessel and the top surface of a coasters absorbent surface. As noted above this is not possible in the Dauer configuration.

It is well established (In Re Ratti⁵) that a suggestion to combine or modify the references can not require substantial reconstruction or redesign of the prior art. In contrast to Dauer, Beard does not consist of two layers of absorbents, does not contain slits in the absorbent pad and would in fact be ineffective if constructed in this manner. Without edges or slits there is no need for edge stitching as proposed in Dauer. Beard relies on embroidery located away from the absorbent edges so that it will be in direct contact with the bottom of the drinking vessel at several locations. It would be a substantial reconstruction of Dauer to propose embroidered designs under the base of the drinking vessel as described in Beard.

In addition, it would not be obvious to one of ordinary skill in the art to use embroidered designs to act to reduce surface tension in the manner proposed by Beard. Under Graham v. Deere Co.⁶, the four factual inquiries for obviousness are: (1) the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims in issue; (3) Resolving the level or ordinary skill in the pertinent art; and (4)

⁵ In Re Ratti, 270 F. 2d 810,123 USPQ 349 (C.C.P.A 1959)

⁶ Graham v. Deere Co., 383 U.S. 1, 148

evaluating evidence of secondary considerations. For secondary considerations, unexpected results among other things are relevant. In considering the differences between the prior art (Dauer and Hailey) and Claims 5 and 8 of Beard the entire invention as a whole must be considered. As noted above, Dauer and Hailey may stand for the proposition that layers of "coform like materials" (coform) could be sewn together at the edges, with slits in the top layer of coform, with stitching on the edges of the slits. It would seem remarkable to conclude that one ordinarily skilled in the art would be guided to create a single layer of absorbent, completely unlike coform and place "embroidery" in the absorbent such that the embroidery acts to interrupt the surface tension between the drinking vessel and the coaster body.

The placement of the stitching in Dauer is at odds with the placement of the embroidery in Beard. To accomplish the purpose and conform with the description in Beard the embroidered design must be placed at a location on the top surface of the absorbent and be in direct contact with the bottom of the drinking vessel. The configuration of the stitching in Dauer is at the far edges of the top and bottom layers and along the edges of the top layer. Dauer and Beard conflict in the use of thread in this manner.

Finally, the mere fact that references can be combined or modified is not sufficient for a prima facie case of obviousness. The prior art must suggest the desirability of the combination.⁷ There is nothing in Dauer that suggests the desirability of placing raised embroidered designs into the absorbent layer of a coaster to be in direct contact with the bottom surface of a drinking vessel. For all of these reasons, claims 5 and 8 (as currently amended) should not be rejected as obvious under 35 USC 103 (a).

⁷ In Re Mills, 916 F. 2d 680, 16